

**WHAT IS CLAIMED IS:**

1 *50* 7. A computer-implemented method for managing information  
 2 relating to processing of polymer probe arrays, said method comprising the steps  
 3 of:

4 creating an electronically-stored experiment table, said experiment  
 5 table storing a record for an experiment, said experiment record comprising:

6 a first identifier identifying a target sample applied to a  
 7 polymer probe array chip in said experiment;

8 a second identifier identifying said polymer probe array chip  
 9 to which said target sample was applied in said experiment; and

10 creating an electronically-stored chip table, said chip table storing a  
 11 record for said polymer probe array chip, said chip record comprising:

12 said second identifier identifying said polymer probe array  
 13 chip; and

14 a third identifier specifying a layout of polymer probes on  
 15 said polymer probe array chip.

1 2. The method of claim A1 further comprising the step of:  
 2 performing an experiment wherein said target sample is applied to  
 3 said polymer probe array chip.

1 3. The method of claim A1 further comprising the steps of:  
 2 creating an electronically-stored target table, said target table storing  
 3 a record for said target sample, said target sample record comprising:  
 4 said first identifier identifying said target sample; and  
 5 a fourth identifier specifying parameters of preparation of  
 6 said target sample.

1 4. The method of claim A1 wherein said polymer probe array  
 2 chip comprises an oligonucleotide array chip.

1 5. A computer-implemented method for managing information  
2 relating to processing of oligonucleotide probe arrays, said method comprising the  
3 steps of:

4 creating an electronically stored analysis table, said analysis table  
5 listing for each of a plurality of expression analysis operations:

6 a first identifier specifying a particular analysis operation  
7 a second identifier specifying oligonucleotide array  
8 processing result information on which said particular expression analysis  
9 operation has been performed; and

10 creating an electronically stored gene expression result table, said  
11 gene expression result table listing for each of selected ones of said plurality of  
12 analysis operations, a list of genes or expressed sequence tags and results of said  
13 particular expression analysis operation as applied to each of said genes or  
14 expressed sequence tags.

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1 6. A computer-implemented method for managing information  
2 relating to processing of polymer probe arrays, said method comprising the steps  
3 of:

4 storing in an electronically-stored experiment table for each of a  
5 plurality of experiments, a first identifier identifying a target sample applied to an  
6 polymer probe array chip in a particular experiment;

7 storing in said electronically-stored experiment table for each of said  
8 plurality of experiments a second identifier identifying said polymer probe array  
9 chip to which said target sample was applied in said particular experiment;

10 storing in an electronically-stored chip table for each of a plurality  
11 of polymer probe array chips, said second identifier identifying a particular  
12 polymer probe array chip; and

13 storing in said electronically-stored chip table for each of said  
14 plurality of polymer probe arrays chips a third identifier specifying a layout of  
15 polymer probes on said polymer probe array chip.

6. 7.

The method of claim <sup>5</sup>6 further comprising the steps of:

storing in an electronically-stored target table, for each of a plurality of target samples, said first identifier identifying a particular target sample; and  
 storing in said electronically-stored target table, for each of said plurality of target samples, a fourth identifier specifying parameters of preparation of said particular target sample.

1. 8.

The method of claim <sup>5</sup>6 wherein said polymer probe array chip comprises an oligonucleotide array chip.SJS  
ABY 9.

A computer-readable storage medium having stored thereon:  
 code for creating an electronically-stored experiment table, said experiment table listing for each of a plurality of experiments:  
 a first identifier identifying a target sample applied to an oligonucleotide array chip in a particular experiment;  
 a second identifier identifying said oligonucleotide array chip to which said target sample was applied in said particular experiment; and  
 code for creating an electronically-stored chip table, said chip table listing for each of a plurality of oligonucleotide array chips:  
 said second identifier identifying said particular oligonucleotide array chip; and  
 a third identifier specifying a layout of oligonucleotide probes on said particular oligonucleotide array chip.

1. 10.

The computer-readable storage medium of claim <sup>8</sup>9 having further stored thereon:

code for creating an electronically-stored target table, said target table listing records comprising:  
 said first identifier identifying said target sample for one or more of said plurality of experiments; and  
 a fourth identifier specifying parameters of preparation of said target sample for one or more of said plurality of experiments.

11. A computer-readable storage medium having stored thereon:  
 an electronically-stored experiment table, said experiment table  
 listing for each of a plurality of experiments:

a first identifier identifying a target sample applied to an  
 oligonucleotide array chip in a particular experiment;

a second identifier identifying said oligonucleotide array chip to  
 which said target sample was applied in said particular experiment; and

an electronically-stored chip table, said chip table listing for each of  
 a plurality of oligonucleotide array chips:

said second identifier identifying a particular oligonucleotide  
 array chip; and

a third identifier specifying a layout of oligonucleotide  
 probes on said particular oligonucleotide array chip.

12. A computer-readable storage medium for managing  
 information relating to processing of oligonucleotide arrays, said storage medium  
 having stored thereon:

code for creating an electronically stored analysis table, said  
 analysis table listing for each of a plurality of expression analysis operations:

a first identifier specifying a particular analysis operation

a second identifier specifying oligonucleotide array  
 processing result information on which said particular expression analysis  
 operation has been performed; and

code for creating an electronically stored gene expression result  
 table, said gene expression result table listing for each of selected ones of said  
 plurality of analysis operations, a list of genes and results of said particular  
 expression analysis operation as applied to each of said genes.

1                   13.    A computer readable storage medium having stored thereon:  
2                   an analysis table, said analysis table listing for each of a plurality of  
3                   expression analysis operations:  
4                         a first identifier specifying a particular analysis operation  
5                         a second identifier specifying oligonucleotide array  
6                   processing result information on which said particular expression analysis  
7                   operation has been performed; and  
8                         a gene expression result table, said gene expression result table  
9                   listing for each of selected ones of said plurality of analysis operations, a list of  
10                  genes and results of said particular expression analysis operation as applied to each  
11                  of said genes.

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